

### **REMARKS/ARGUMENTS**

Under the non-final Office Action mailed on September 8, 2003, claims 1-84 were subject to examination. Claims 1, 25, 53, and 70 were rejected for nonstatutory double patenting based on the judicially created doctrine, grounded in public policy, to prevent unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. More particularly, claims 1 and 25 were rejected under the doctrine of obviousness-type double patenting as unpatentable over claims 10, 13, 14, 15, and 17 of copending Application No. 09/848,055, now US Patent No. 6,643,024 ('024 patent) issued on November 4, 2003. Claims 53 and 70 were also rejected under the doctrine of obviousness-type double patenting as being unpatentable over claims 22 and 25 of copending Application No. 09/848,055, again now US Patent No. 6,643,024 ('024 patent) issued on November 4, 2003. Claims 2-24, 26-52, 54-69, and 71-84 were indicated allowable if rewritten in independent form including all of the limitations of their base and any intervening claims.

By way of this amendment, Applicant, with all due respect, traverses the propriety of the nonstatutory double patenting rejection as improper and requests reconsideration thereof for reasons set forth below in detail, and submits new claims, claims 85, 86, 87 and 88. New claim 85 is a combination of original claims 1 and 25; new claim 86 is a combination of original claims 25 and 26; new claim 87 is a combination of original claims 53 and 54; and new claim 88 is a combination of original claims 72 and 73. As such the foregoing new claims should be in immediate condition for allowance.

The double patenting rejections are improper because the invention defined by the claims in the instant application and the invention defined by the claims in the issued '024 patent differ markedly in scope and are patentably distinct; there can be no improper extension of a patent monopoly between this application and the claims of the '024 patent because the claims of the '024 patent are demonstrably narrower in scope than those of the instant application in spite of what the Office Action contends; and the claims in the '024 patent actually expire later than would the claims of the instant application. Moreover, the Office Action fails to make out a legally proper prima facie case for obviousness because it relies on an improper analysis of the scope of the claims being compared. In addition, the original claims of the '024 patent

were directed to illumination apparatus and methods and interferometric apparatus and methods, like those of the present application, and were subjected to a restriction requirement because the illumination apparatus and method claims were considered to be patentably distinct from the interferometric apparatus and method claims.

To properly understand why the claims of this application and those of the '024 patent against which they are being compared differ markedly in scope requires a thorough and thoughtful analysis of the content of those claims, paying particular attention to their differences and similarities; to the extent the latter exist. This may best be done by referring to Attachment A appended hereto in which the relevant claims have been compared on an element-by-element basis and their similarities/differences listed in the first column with a "yes" or "no" indication. A "no" means the elements are not similar or even present while a "yes" means they are.

When referring to the claims of the present invention, those of the '024 patent, and the table of Attachment A, it can be seen that claims 1-24 of the present application are directed to "illumination apparatus"; claims 25-52 are directed to "interferometric apparatus"; claims 53-69 are directed to an "illumination method"; and claims 70-84 are directed to an "interferometric method". The Office Action contends that claim 1 of the present application, directed to an illumination apparatus, would have been obvious in view of former claims 10, 13, 14, 15, and 17 of the '024 patent, all of which are directed to "interferometric apparatus". The Office Action also contends that claim 53 of the present application, directed to an illumination method, would have been obvious in view of claims 22 and 25 of the '024 patent, both of which are directed to "interferometric methods". It further contends that claim 25 of the present invention, directed to interferometric apparatus, would have been obvious in view of claims 10, 13, 14, 15, and 17 of the '024 patent, all directed to interferometric apparatus of vastly different scope than claim 25. It further contends that claim 70 of the present invention, directed to an interferometric method, would have obvious in view of claims 22 and 25 of the '024 patent, both of which are directed to an interferometric method of vastly different scope.

If one takes these characterizations into consideration and carefully examines the element-by-element comparison of the relevant claims presented in Attachment A, it should be clear that the claims of the '024 patent are substantially narrower in scope than those of the present application rather than broader as the Action contends.

Moreover, the claims of the '024 patent expire on April 19, 2022 because of a positive patent adjustment of 350 days under 35 USC 154(b) while those of the present application would expire on January 22, 2022. Consequently, it is difficult to understand how the contested claims of the present invention, if issued, could possibly be considered to extend the patent monopoly since they actually would expire earlier than those of the '024 patent. Since the claims of the present invention would not operate to extend any monopoly, the obviousness-type double patenting rejection should be withdrawn on this basis alone:

In support of the rejection, the Office Action erroneously asserts that the claims of the '024 patent are broader than those of the present invention. However, it arrives at this conclusion by comparing only one element of the claims being contrasted rather than the inventions defined by by all of the claimed elements of the contrasted claims. This is clearly not permissible. To sustain, an obviousness-type double patenting rejection, the inventions actually defined by all of the elements of each claim being asserted against another must be considered, and not just certain elements in isolation. The analysis must be of the whole invention ***defined by all of the elements in each claim*** being contrasted. Consequently, the Office Action fails to have established a prima facie case, and therefore, for this reason alone, the rejection should be withdrawn.

During the prosecution of the '024 patent, the Office issued a restriction requirement between the application's illumination apparatus and method claims and its interferometric apparatus and method claims, concluding that they were patentably distinct one from the other. Thus, the restriction requirement in the '024 patent is yet further clear evidence that at least the illumination grouped claims of the present invention are patentably distinct from the interferometric grouped claims of the '024 patent, and for this reason, the obviousness-type double patenting rejections of those claims should be withdrawn.

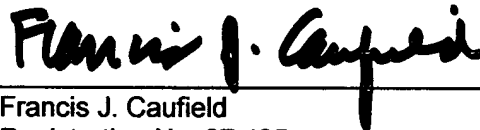
New claims 85-88 have been submitted to preserve Applicant's rights, but could be withdrawn in the event that the present obviousness-type double patenting rejection is withdrawn.

In view of the above action, which introduces no new issues or requires any new examination, Applicant respectfully submits that this application is in immediate condition for allowance and requests that a timely Notice of Allowance be issued.

Respectfully submitted,

February 4, 2004

Date



Francis J. Caufield

Registration No. 27,425

**Customer Number 30,333**

6 Apollo Circle  
Lexington, MA 02421-7025

Telephone: 781 860 5254  
Facsimile: 781 862 9464